- ID 1273178
- One against all way SVM training
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1. Testing output of one against all SVM with different C(1, 10, 100).

One against all SVM accuracy, C = 1.

Fold	Linear(Train, Test)	Poly(Train, Test)	RBF(Train, Test)
(1)	|0.783333|0.800000|	|0.975000|1.000000|	|0.983333|1.000000|
(2)	|0.850000|0.833333|	|0.975000|1.000000|	|0.983333|0.966667|
(3)	|0.783333|0.833333|	|0.983333|0.933333|	|0.991667|0.933333|
(4)	|0.783333|0.633333|	|0.991667|0.933333|	|0.991667|0.966667|
(5)	|0.800000|0.733333|	|0.966667|0.966667|	|0.975000|0.966667|
Avg	|0.800000|0.766667|	|0.978333|0.966667|	|0.985000|0.966667|

One against all SVM accuracy, C = 10.

Fold	Linear(Train, Test)	Poly(Train, Test)	RBF(Train, Test)
(1)	|0.850000|0.866667|	|0.975000|1.000000|	|0.991667|1.000000|
(2)	|0.850000|0.766667|	|0.983333|1.000000|	|0.991667|0.966667|
(3)	|0.825000|0.800000|	|0.991667|0.900000|	|1.000000|0.900000|
(4)	|0.800000|0.733333|	|0.991667|0.933333|	|1.000000|0.933333|
(5)	|0.808333|0.766667|	|0.975000|0.966667|	|0.991667|0.966667|
Avg	|0.826667|0.786667|	|0.983333|0.960000|	|0.995000|0.953333|

One against all SVM accuracy, C = 100.

Fold	Linear(Train, Test)	Poly(Train, Test)	RBF(Train, Test)
(1)	|0.841667|0.866667|	|0.983333|1.000000|	|1.000000|1.000000|
(2)	|0.858333|0.733333|	|0.991667|0.933333|	|1.000000|0.966667|
(3)	|0.808333|0.800000|	|1.000000|0.900000|	|1.000000|0.900000|
(4)	|0.808333|0.733333|	|1.000000|0.933333|	|1.000000|0.933333|
(5)	|0.808333|0.733333|	|0.983333|0.966667|	|1.000000|0.966667|
Avg	|0.825000|0.773333|	|0.991667|0.946667|	|1.000000|0.953333|

2. Conclusion:

1) Poly and RBF has better classification rate than linear way.
2) RBF has the best training accuracy rate in general.
3) Different C value has affection on the training accuracy.